Errata and Addenda for Quantum Field Theory

It was Greta Garbo, not Marlene Dietrich!
Update: February 2, 2009

I have updated this errata list only sporadically since 2006. In any case, You are still welcome to send in any errors, typographical or otherwise, that you notice (in the format specified below.) Please check to see if your errata are not already listed here.

One thing that is useful for me to know is how complete the index is. If there are items in the index that you feel should be there but are not, please let me know. (For example, I looked up "covariant derivative" in the index and it was not there.) Most people do not know that the index is not prepared by the author but by a professional index compiler who often knows almost nothing about the subject of the book.

I would also like to take this opportunity to thank all of you who sent in errata, particularly those who also posted a favorable "Customer Review" on Amazon.com. Appreciative words from readers make the enormous effort that went into writing a book like this worthwhile.

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Errors, typographical and otherwise, in Quantum Field Theory in a Nutshell are listed here. Readers who find errors are urged to bring them to my attention by email (zee@kitp.ucsb.edu) using for subject "nutshell errata" so that your email does not get treated as spam by the filter on my mailer. I would appreciate it if you would write them in exactly the same format as used here, including the (Thanks to ABC). Notation: Line –n means line n from the bottom of the page. Please check to see if the errata you found are not already listed here.

I apologize to all those who sent in errata during academic year 2006-07. I was away on sabbatical at Harvard and did not know how to update my web site remotely. In any case, the stream of errata had thinned to a trickle. If you feel that the erratum you sent in is particularly serious, please email me again. Thanks. Also, a Clarifications page has been added.

Last update: December 4, 2007 (previous update: June 29, 2005)

"Of making books there is no end, and much study is a weariness of the flesh." -- Ecclesiastes 12:12

Addenda

p66: In the simplified calculation of the Casimir effect, the 24 in eq (19) is the same 24 that appears in string theory! (24+2=26=the dimension of spacetime the quantum bosonic string must live in.)
p117: The line uttered by Greta Garbo came from the film Ninotchka (1939). (Thanks to Amanda Weltman) INCORRECT: The film is Grand Hotel (1932) which I do not particularly recommend. Contrary to what was written on the bottom of this page, in the film she did say "I want to be alone." All of this harping on a triviality stems from a book by Gamow that I read as a kid.

p309: The URL in footnote 1 has been changed to http://www.maths.ed.ac.uk/~jmf/Teaching/Lectures/EDC.pdf (Thanks to Philip Tanedo)

Errata

p11:In the expression directly after the phrase "Doing the integral over p, we get", a factor of 1/(2pi) from the normalization of the momentum space integral was dropped. This error then propagates down the rest of the page until (4). It is however immaterial because eventually it is just absorbed into the definition of Dq. (Thanks to Latham A. Boyle)
p11: All of the products on this page should run from 1 to N-1 (but the sums should run from 0 to N-1). (Thanks to Latham A. Boyle)
p15: In Eq.(20), inside the square root, the factor 2*pi*hbar should be raised to the Nth power. (Thanks to Latham A. Boyle)
p16: A potential source of confusion: In the literature, the boundary condition on path integrals is conventionally not displayed explicitly but is understood implicitly. For example, the integral in (1) on p 16 actually differs from the integral in (6) on p 12. The attentive reader would find this point explained in the middle of p 12. (Thanks to Nikolas Akerblom)
p17: 2nd full paragraph, there is a sign error: 1st sentence should say: 2*q_a*q_b=q_a^2+q_b^2-(q_a-q_b)^2 (Thanks to Latham A. Boyle)
p18: 2nd full paragraph: Lorentz invariance allows V(phi) to be some general function of phi, e.g. cosh(phi)). I restricted myself to a polynomial at this point merely for the sake of simplicity. Later when we study renormalizability in (3+1)-dimensions V will have to be restricted to a polynomial. (Thanks to Latham A. Boyle)

p19: Section: "The vacuum" exp(-iHt) instead of exp(iHt) in the bracket. (Thanks to Adrian Chirila)

p23: In the second line above Eq.(23), the exponent of the formula "i(\omega_k t - kx)" should be "-i(\omega_k t - kx)". (Thanks to Sung-Soo Kim)
p26: In the line just above Eq.(6), "iW=iET" should be "iW=-iET". (Thanks to Sung-Soo Kim)
p27: In the equation for Z(J): should have (iW(J))^n, opening parenthesis missing. (Thanks to Sho Yaida)
p33: In the fifth line below Eq.(12), "Appendix C" should be "Appendix B".(Thanks to Sung-Soo Kim)
p40: After (3), "make" should be "made". (Thanks to Pierre Jouvelot)
p43: -line 15: 3! in the denominator should be indeed replaced by 2(6!). (Thanks to Seunghun Hong, Mike Mowbray, and Joshua Feinberg)

p43: line 9: the denominator should contain (4!)^2 instead of (4!)^3 (Thanks to Jean Orloff) INCORRECT: The numerical factor stated in the book is in fact correct. Thanks to the many readers who sent in this anti-erratum.
p44: In Figure I.7.2, a diagram consisting of three straight lines and one vacuum bubble containing two vertices is missing. (Thanks to Sho Yaida)

p44: In Figure I.7.2, a diagram consisting of one straight line and two crossed lines with a loop on one leg, is missing. (Thanks to John Cummings and Jim Napolitano and
Caterina Soldano)

p44: In Figure I.7.2, six diagrams are missing. (There should be a total of thirteen.) All are diagrams that are, or should be, in Figure I.7.3, plus one straight line. (Thanks to Jim Napolitano.)

p44: Figure I.7.2 misses 2 more diagrams, constructed by adding a disconnected line to the graphs (a) and (b) of fig I.7.3 (Thanks to Jean Orloff)
p45: In Figure I.7.3, a diagram consisting of two straight lines and one vacuum bubble containing two vertices is missing. (Thanks to Sho Yaida)

p45: In Figure I.7.3, two diagrams, each consisting of two straight lines and one vacuum bubble containing two vertices, are missing. (There are two ways to make a vacuum bubble with two vertices.) Also missing is a diagram with three straight lines, one of which has a vacuum bubble attached which also has an internal vertex. (Thanks to Jim Napolitano.)
p45: In the expression for G^{(4)}, the integral should be multiplied by -\lamda/(4! Z(0,0) and the right hand side of the equality should be (-7!! \lamda)/(4! m^8) . (Thanks to Latham A. Boyle, Chung-Pin Chou, and Pierre Jouvelot)
p47: In (9) there is an implicit sum over i_1, …, i_s, with each index running over 1, …, N independently. (Thanks to Sho Yaida & Chih-Hao Fu & Kevin C. W. Lai)

p47: equation (10): I intentionally omitted the disconnected diagrams of order lamda were omitted since they were to be introduced later. (Thanks to Latham A. Boyle)

p48:In Eq.(12), there should be no Z(0,0) in the first line, while the second line is correct.(Thanks to Xining Du)
p48: equation (13): both expressions on the RHS of the equal sign should be integrated over dx_1*dx_2*...*dx_s. (Thanks to Latham A. Boyle)

p51 - p52: I intentionally left out the i's associated with D(x_1-x_2) for brevity. The Feynman rules have these i's included correctly. (Thanks to Latham A. Boyle)
p50: Second line after (17), “by (i/4!)” should be “by -(i/4!)”. (Thanks to Sho Yaida)
p51: In the second line following (19), (4!)^2 should be (4!)^3. (Thanks to Pierre Jouvelot)
p55: In Figure I.7.9 an arrow mark for the line marked k_4 is missing. (Thanks to Sho Yaida)
p55: Third line below Eq(21), Figure I.7.5 should read Figure I.7.9. (Thanks to Sung-Soo Kim)
p62: 3 lines after (4), the ket for |0> doesn't use the proper font. (Thanks to Pierre Jouvelot)
p63: In the last line, (I.3.20) should be (I.3.22). (Thanks to Sho Yaida)

p63: In the first line of Eq.(9), "L" should be "{\cal L}", that is, Lagrangian density instead of Lagrangian. Either that, or take it outside the brackets inside the integral. (Thanks to Jim Napolitano.)
p64: In the fifth line, Exercise I.8.2 should be Exercise I.8.3. (Thanks to Sho Yaida)
p65: The expression following "the energy per unit area between the plates is changed to” needs a factor 1/2. (Thanks to Xuguang Huang)
p68: The operators that appear in the second (unnumbered) equation on p.68 should be Schrödinger operators. Then, multiplied by the exponents of the Hamiltonians, they are mapped into Heisenberg operators as appears in eqs. (21) and (22). Also, in eq. 22, e^(-iHT) should either be included in the time ordering operation, or put on the left. (Thanks to Charles H. Henry and Joshua Feinberg)
p68: The operators that appear in the second (unnumbered) equation on p.68 should be Schrödinger operators. Then, multiplied by the exponents of the Hamiltonians, they are mapped into Heisenberg operators as appears in eqs. (21) and (22). Also, in p69: In the right hand side of the last equation of Exercise I.8.5, "!" should be "i". (Thanks to Sung-Soo Kim)
p69: prob. I.8.4, 5th line: superfluous dot before the word "creates". (Thanks to Andy Tenne-Sens)

p69 line -2: Ann Phys 288:103 (2001) (Thanks to A. Anabalon & Jim Napolitano)

p71: In the third line below the "Continuous Symmetries" heading, there is an extraneous colon (":") before "so that...". (Thanks to Jim Napolitano.)
P74: In the last sentence right before the Exercises is a statement [Q,\phi]=\phi. The Q here is evidently defined with a minus sign compared to the Q in exercise I.8.4. (Thanks to Seunghun Hong)

p79 line7: The subscript on (E x B) should be i, not k. (Thanks to Nikolai von Boetticher)
p79: In the second paragraph in the Appendix, there is a closing parenthesis that is not needed. (Thanks to Sho Yaida)

p 91: Typographical problem throughout: 1st line of the Cousins of the gamma matrices section, it is important to distinguish the order of indices on Lambda as Lambda^nu_mu. (Thanks to Parsa Bonderson)
p92:The two mentions of the Lorentz transformation in exponential form are missing a factor of i in the exponent, as is included on the following page: exp{-1/2 \omega_{\mu\nu} J^{\mu\nu}} should be exp{-i/2\omega_{\mu\nu} J^{\mu\nu}}. (Thanks to Sung-Soo Kim and Ryan Springall)
p96: 5 lines after (24), "that the they" should read "that they". (Thanks to Pierre Jouvelot)
p98: Ettore Majorana (1906-1938). In footnote 2, “twenties” should read “early thirties”. (Thanks to Frank Reashore)
p102: There is a missing] at the end of the text of Exercise II.1.1
p103: Last line, N|0> =|0> should be N|0>=0. (Thanks to Sung-Soo Kim)
p105: footnote, the reference should read Relativistic Quantum Mechanics instead of Relative Quantum Mechanics. (Thanks to Istok Mendas)
p106: After (14), it seems that +(-)ipx (with arrows) should be -(+)px in order to be superficially consistent with (10) but nothing is affected since the pvector can be rotated. (Thanks to Pierre Jouvelot)

p112: An i is missing on the LHS in (5) and (6). J and K are defined by the action of rotation and boost on (t,x,y,z) as given by E^(i (real parameter) J or K). (Thanks to Adam Brown, Joshua Feinberg, and Fred Kuttner)
p113: First line above spinor representation, Exercise III.3.1 should read II.3.1. (Thanks to Sung-Soo Kim)
p117: It should be Greta Garbo, not Marlene Dietrich. (Thanks to Saul Epstein and Murph Goldberger)
p122: line 4: Fig. I.7.7 should be Fig. I.7.12. (Thanks to Latham Boyle)
p122: Tr, in the last formula, should not be in italics. In other parts of the book, tr in lower case is also used. (e.g., in (12)). (Thanks to Pierre Jouvelot)
p123: A possible minus sign could have been absorbed into C or A. (Thanks to Pierre Jouvelot)
p124: line 6 above (6): x should be \chi. (Thanks to Jeroen Spandaw)

p127 line -4: u-bar(p',s') instead of u-bar(p',s). (Thanks to Joshua Greenberg)

p127 line -2: Should read, "For antifermions, we would have v-bar(p,s) and v(p',s'), respectively." (Thanks to Joshua Greenberg)

p133: last equation: (1) The overall factor should have $(2m)^4$ in the denominator; (2) the Greek indices on the rightmost factor should be lower, not upper. (Thanks to Jim Napolitano.)
p136: \Gamma_{\lambda\nu} should be \Gamma_\lambda^\nu. (Thanks to Pierre Jouvelot)
p138: The need for a tr operation on closed fermion loops is self-evident and is needed for the spinor indices to completely match upbut this fact was not explicitly stated in the Feynman rules given on page 127. It is however somewhat implicit in the discussion on pages 125-126. (Thanks to Pierre Jouvelot)

p152: In the equation for M at the top of the page, the integrand should be 1/D^2. (Thanks to Jim Napolitano.)
p152: In the line before (12), (1-\alpha)k^2 should be (1-\alpha)K^2. (Thanks to Pierre Jouvelot)
p153: In formula after (15), the printer interchanged (and [. (Thanks to Pierre Jouvelot)
p168: In the 6th line, "Q_{mu nu} A^{nu} = J^{nu}" should be "Q_{mu nu}A^{nu} = J_{mu}". (Thanks to Sung-Soo Kim)
p171: display (8): subscript "eff" in wrong font. (Thanks to Jeroen Spandaw)
p174: line -5 from (10): "tend" should read "tends". (Thanks to Jeroen Spandaw)

p177: in the third line of (3), the second term should have a + sign. (Thanks to Parsa Bonderson)
p180: In (9), the -m should be +m. (Thanks to Pierre Jouvelot)
p184: In the formula for iD(q), \Pi_{\lambda\rho} should be \Pi^{\lambda\rho}. In the following term, \lambda\rho in \Pi, \sigma in D and \kappa in \Pi should be upper indices. (Thanks to Pierre Jouvelot)
p184: line 1 below (3): Figure III.7.1 should be Figure III.7.2 (Pi corresponds to shaded objects, which are present only in Figure III.7.2). (Thanks to Jeroen Spandaw)
p185: In (6) and (7), the indices of gamma matrices should be lower indices. (Thanks to Pierre Jouvelot)
p186: In the equality for \Pi near the middle of the page, -i should be (-). (Thanks to Pierre Jouvelot) Next line, -m should be +m. (Thanks to Pierre Jouvelot)
p187: In (11), +m^2g_{\mu\nu} should be -m^2g_{\mu\nu}. (Thanks to Pierre Jouvelot)
p187: line 1 after (11): prevent line break between Appendix & D. (Thanks to Jeroen Spandaw)

p188: In (14) a right parenthesis is misplaced. (Thanks to Pierre Jouvelot)
p190: In problem III.7.1, the reference to Eq. (III.1.16) should actually refer to Eq. (III.1.15). (Thanks to Latham Boyle)
p195: line 4 below (4): Insert a minus sign before V(\phi)|_{\phi = v}. (Thanks to Jeroen Spandaw)
p196: 1st line, negative should be positive. (Thanks to Saul Epstein)
p198: In (7), the additive constant was dropped (perhaps intentionally). (Thanks to Latham Boyle)
p203: In Line 2, the minus sign for the electron field should be a superscript; the same problem occurs in (1). (Thanks to Pierre Jouvelot)
p203: In Line −2, the reference to III.6.9 should be III.6.7. (Thanks to Pierre Jouvelot)
p203: Three lines before (2), one should have e^{+i(p'−p)x}, to be consistent with the usual e^{ipx} and the formula that follows (4) on p205. (Thanks to Pierre Jouvelot)
p206: RHS of 1st equation: i should be switched to −i both times it appears. [because of the sign error 3 lines above (2) on p203] (Thanks to Latham Boyle)
p208: The reference to III.3.3 should be III.3.4. (Thanks to Pierre Jouvelot)
p209: In Eq. (3): curly Z should be ordinary Z. (Thanks to Latham Boyle)
p209: line 1 after (3): drop “2” after Appendix. (Thanks to Jeroen Spandaw)
p214: Before (24), Reference to II.5.12 should be II.5.2, and there is a spurious right parenthesis before the semicolon. (Thanks to Pierre Jouvelot)
p214: Last sentence before "Fermions" section: reference to Chapter IV.7 should be to Chapter IV.6 (the reference should be to Exercise IV.6.9). (Thanks to Latham Boyle)
p216: The end of the last paragraph: Phys. Rev. D7:1883,1973 is Phys. Rev. D7:1888,1973. (Thanks to Ilja Dorsner)
p228: In (5), one of the indices \mu should be raised. (Thanks to Sung-Soo Kim)
p230: line −15: replace "rules" with "diagrams". (Thanks to Jeroen Spandaw)
p234: There should be no i in (24). (Thanks to Pierre Jouvelot)
p235: In the second paragraph, “the basis { \psi a }” should read “the basis { \psi_a }”. (Thanks to Frank Reashore)
p237: “See Appendix C for the necessary grouptheory” should read “See Appendix B for the necessary grouptheory”. (Thanks to Frank Reashore)
p237: In Paragraph 3, the reference to IV.5.21 should be IV.5.20. (Thanks to Pierre Jouvelot)
p238: In the second paragraph of the Counting Massless ... section, one should say "we end upwith one massless gauge boson". (Thanks to Pierre Jouvelot)
p242: In Exercise IV.6.9., the reference should be to IV.3.5. (Thanks to Ilja Dorsner)

p242: In the last line: Phys. Rev. D7:1883,1973 is Phys. Rev. D7:1888,1973 (Thanks to Ilja Dorsner)
p242: In the 1st line of Exercise IV.6.9, the reference should be to Exercise IV.3.5. (Thanks to Latham Boyle)
p242: In Exercise IV.6.6, the reference should be to III.4.9. (Thanks to Pierre Jouvelot)
p245: In line 7, the right parenthesis should be a right bracket, and the conventional propagator uses (1-\ksi) instead of \ksi. (Thanks to Pierre Jouvelot)
p245: In the first paragraph, the reference should be to Chapter II.6. (Thanks to Pierre Jouvelot)
p246: Near the topof page, “(see Appendix E)” should read “(see Appendix D)”. (Thanks to Frank Reashore)
p247: In the last expression of the equalities, the (-) sign should be a +. In (5), the - sign should be propagated (-4i/... and -i/...). One gets the correct expression for (6) if one replaces the + sign in the definition of a, before (6), by a - sign. (Thanks to Pierre Jouvelot)
p247: Line 10: There is a missing = between f(P) and the limit expression. (Thanks to Pierre Jouvelot)
p247: The "tr" symbol should be in roman in the definition of f(P). (Thanks to Pierre Jouvelot)
p257: Precedng (1), somewhat better to replace (III.5.6) by (III.5.11). (Thanks to Saul Epstein)
p258: hbar k^2/2m should read (hbar k)^2/2m. (Thanks to Ilja Dorsner)
p258: In the first paragraph, “(see appendix to this chapter.” should read “(see appendix to this chapter). (Thanks to Frank Reashore)”
p260: In (9) u^2 must be replaced by the total particle number N, defined by N = u^2 + \sum _{k \notequal 0} a_k^\dagger a_k . Note that the Hamiltonian to this order in the expansion also includes the terms coming from expanding G u^4 = G N^2 - 2\sum _{k \notequal 0} a_k^\dagger a_k . (Thanks to Robert Graham)
p264: At the end of the first sentence, there is an missing right paren after "(3". (Thanks to Pierre Jouvelot)
p266: Ex. V.2.2, last line: closing bracket is missing. (Thanks to Andy Tenne-Sens)
p273: last paragraph: change "(see fig. (2)) " to "(Fig. V.5.2)". (Thanks to Andy Tenne-Sens)
p274: end of 2nd paragraph, `+' in front of v_F should be `-'. (Thanks to Yu Shi)
p274: In figure V.5 the value of k runs from -pi/a to +pi/a. (Thanks to Joseph Abraham)
p275: 2nd para., 3rd line: the mattress is actually introduced in Chapter I.1. (Thanks to Andy Tenne-Sens)
p277: In the first paragraph of the Small Oscillations ... section, there is a \sqrt{2} missing in the mass. (Thanks to Pierre Jouvelot)
p280: In the inequality for M, one should have v^2\phi instead of v^2\phi^2. (Thanks to Pierre Jouvelot)
p280: inequality for M: "[" missing before \frac13 \phi^3. (Thanks to Jeroen Spandaw)
p283: 5th line from the bottom: the upper arrow is too short. (Thanks

to Andy Tenne-Sens)
p283: Stoke's should read Stokes's or Stokes. (Thanks to Jeroen Spandaw)
p284: 1st line: Z_2 is the multiplicative groupconsisting of the set of integers {+1, -1}. (Thanks to Andy Tenne-Sens)
p284: One should have d^3x in (4). (Thanks to Pierre Jouvelot)
p286: 2nd paragraph, 4th line: the upper arrow is too short. (Thanks to Andy Tenne-Sens)
p286: 1st line, the given expression of path integral is already in euclidean form and so should appear at the end of the sentence. (Thanks to Yu Shi)
p286: In the line after (10), the "tr" should be in roman. (Thanks to Pierre Jouvelot)
p293: e^{iHT} should be e^{-iHT}. (Thanks to Yu Shi)
p296: 2nd paragraph, last line: should read "... , and obtain ...". (Thanks to Andy Tenne-Sens)
p296: 2nd line, it should be Lorenz gauge. (Thanks to Saul Epstein)
p296: in (4): subscript "Hopf" should be in roman font. (Thanks to Jeroen Spandaw)
p297: Before (6), the reference to Chapter III.4 should be III.7. (Thanks to Pierre Jouvelot)
p298: In (7), the "tr" should be in roman. (Thanks to Pierre Jouvelot)
p298: In Line -9: "by thinking about mass dimensions" (Exercise VI.I.2.) (Thanks to Emanuele Rodo)
p301: line 10: Replace "level is" with "levels are". (Thanks to Jeroen Spandaw)
p302: In (1), "e" is missing in the covariant derivatives, or one should assume e=1 (something not used in this chapter). (Thanks to Pierre Jouvelot)
p302: In (1), the sign of the spatial derivative term and of V should be reversed. The + superscript for \psi should be the dagger sign. (Thanks to Pierre Jouvelot)
p305: 1st line after (10): remove parentheses thus: "Chapter VI.1". (Thanks to Andy Tenne-Sens)
p305: In (10), the index \nu on the partial derivative should be an upper index. (Thanks to Pierre Jouvelot)
p305: in (8): subscript "em" should be in roman font. (Thanks to Jeroen Spandaw)
p308: prob. VI.2.1, 6th line: change " ... . " to " ... , ". (Thanks to Andy Tenne-Sens)
p317: In the second paragraph, the reference to (28) should be (30). (Thanks to Pierre Jouvelot)
p319: In (2), a factor 1/2 is missing before (d\pi)^2. (Thanks to Pierre Jouvelot)
p319: In the paragraph following (2), it is said that the vacuum expectation value of \phi can point in the 4th direction. (Thanks to Pierre Jouvelot) The 4th should be replaced by 1st. (Thanks to Pierre Jouvelot)
p319: In the second paragraph, "m" is missing before (\psibar_L\psi_R+h.c.). (Thanks to Pierre Jouvelot)

p320: In the first line of the The Nonlinear ... section, "abut" should be "about". (Thanks to Pierre Jouvelot)
p323: (3), subscript `i' in the second term should be `j'. (Thanks to Yu Shi)
p331: 4th line: "but S is unsuitable". (Thanks to Andy Tenne-Sens)
p331: bottom of 2nd paragraph: change "esponent" to "exponent". (Thanks to Andy Tenne-Sens)
p331: "is" is missing between "S" and "unsuitable" after the first formula. (Thanks to Pierre Jouvelot)
p332: Before (1), there should be no "i" before \pi in the limit expression. (Thanks to Pierre Jouvelot)
p333: Before (5), the reference should be to A.12. (Thanks to Pierre Jouvelot)
p334: In (7), -S(\phi) is perhaps better written as iS(\phi) but in fact S was not specified. (Thanks to Pierre Jouvelot)
p335: In (9), by translation invariance \phi(x)\phi dagger(x) could be written as \phi(0)\phi dagger(0) if one wishes. (Thanks to Pierre Jouvelot)
p339: At the end of the first paragraph of Section Flow Of The ..., the reference III.7.13 should be III.7.14. (Thanks to Pierre Jouvelot)
p342: 1st line: For clarity this should read "As with any field theory, and as I have indicated, …" . (Thanks to Andy Tenne-Sens)
p344: end of 3rd paragraph: normal parentheses would be more conventional than square brackets. (Thanks to Andy Tenne-Sens)
p346: end of 3rd paragraph: "4-dimensional" should have hyphen, not dash. Also, parentheses instead of square brackets might be preferable. (Thanks to Andy Tenne-Sens)
p347: 4 lines above (18) change “der Integral.” into “das Integral.” (Thanks to Robert Graham)
p347: "after", in the first line of the last paragraph, should be "offer". (Thanks to Paul Slater, Andy Tenne-Sens, and Pierre Jouvelot.)
p348: In Footnote 6, "conductivty" should be "conductivity". (Thanks to Pierre Jouvelot)
p348: The reference to VI.6.2 in the last paragraph should be VI.8.2. (Thanks to Pierre Jouvelot)
p349: Fig. VI.8.2: Change "d"s to "D"s. (Thanks to Andy Tenne-Sens)
p350: prob. VI.8.5: Move closing square bracket to the very end of the problem statement. (Thanks to Andy Tenne-Sens)

p353: There should be a negative sign in front of the second term of equation (2). (Thanks to Tim Hsieh)
p354: The reference to Chapter III.4, in the middle of the page, should read II.5. (Thanks to Pierre Jouvelot)
p355: in (8) and (9), for uniformity the x dependence should perhaps be suppressed. (Thanks to Andy Tenne-Sens)
p356: 1st paragraph, last line: The \mu and \nu subscripts in the second term should be interchanged. (Thanks to Andy Tenne-Sens)
p360: prob. VII.1.1: add closing square bracket at the end of the problem statement. (Thanks to Andy Tenne-Sens)

p363: 2nd paragraph: replace square brackets with parentheses. (Thanks to Andy Tenne-Sens)
p363: 3rd paragraph, 3rd line: The \mu and \nu subscripts in the third W of the formula should be interchanged. (Thanks to Andy Tenne-Sens)

p363: Line -2: Should read "The fact... provides.....". (Thanks to Daniel Gerber)
p366: 4th paragraph, 7th line: should read "Chapter IV.6" (unitary gauge is mentioned on p241). (Thanks to Andy Tenne-Sens)
p369: 2nd paragraph: inconsistent spellings: "nonabelian" and "non-abelian". (Thanks to Andy Tenne-Sens)
p373: 1st line after (7): replace square brackets with parenthses. (Thanks to Andy Tenne-Sens)
p373: The reference to Exercise I.8.4 in the next to last paragraph should be I.8.5. (Thanks to Pierre Jouvelot)
p374: line immediately before (8): capitalize "We" (although Webster's claims a colon does not force capitalization of the word immediately following. However, words are capitalized after a colon everywhere else in the book). (Thanks to Andy Tenne-Sens)
p375: 1st line: change "turns" to "turn". (Thanks to Andy Tenne-Sens)
p377: In the first paragraph, “abut 10%” should read “about 10%”. (Thanks to Frank Reashore)
p377: line 8: "abut" should be "about". (Thanks to Jeroen Spandaw)
p378: The reference to Chapter IV.6 in the second paragraph should be IV.5. (Thanks to Pierre Jouvelot)
p380: In Equation 3, d\phi should be D\phi. Also in the definition of <O(\phi)>, "tr" shouldn't be in italics. (Thanks to Pierre Jouvelot)
p381: The labeling of i, j, k, and l are not the same in (6) and in Fig. VII.4.4. (Thanks to Andy Tenne-Sens)

p384: The arrowed line should be "broken" in two more places than shown. (Thanks to A. Zee)
p384: 3rd line after (12): capitalize "Chapter". (Thanks to Andy Tenne-Sens)

p385: Line 7: should be m>n under product symbol. (Thanks to A. Zee)

p385: (13): Should be m>n under product symbol. (Thanks to A. Zee)

p385: (13): The sum should be divided by 2. (Thanks to A. Zee)
p385: (13): extra right-parenthesis after "log". (Thanks to Andy Tenne-Sens)

p385: (14): The sum should be divided by 2. (Thanks to A. Zee)
p385: In the last paragraph, in definition of G(z), \lambda should be z. (Thanks to Pierre Jouvelot)
p388: 1st line in new subsection: capitalize "Chapter". (Thanks to Andy Tenne-Sens)
p390: In Exercise VII.4.5, there is a missing right parenthesis after the reference to Exercise VI.6.1. (Thanks to Pierre Jouvelot)

p391: last line, Appendix C should be Appendix B. (Thanks to William Kaufmann)
p392: last line: add comma: " = 10, precisely ". (Thanks to Andy Tenne-Sens)p393: lines 4 and 11, Appendix C should be Appendix B. (Thanks to William Kaufmann)

p394: In (12), in the 4th and 5th columns of the matrix, u and d are interchanged. (Thanks to Tim Hsieh)
p398: 1st line in new subsection: capitalize "Exercise" and dropparenthesis. (Thanks to Andy Tenne-Sens)
p401: The reference to Exercise VII.6.3 in the paragraph before the Fermion Masses section should be VII.6.2. (Thanks to Pierre Jouvelot)
p403: On Line 3, "abut" should be "about". (Thanks to Pierre Jouvelot)p405: paragraph 2, line 7, Appendix C should be Appendix B. (Thanks to William Kaufmann)
p406: line 8 from bottom, Appendix C should be Appendix B. (Thanks to William Kaufmann)
p408: line −3 should be “representations”. (Thanks to Andy Tenne-Sens)
p412: line −12: Q(e−) = −1 instead of 0. (Thanks to Jeroen Spandaw)
p414: 5th and 6th lines after (24): "conjugates" instead of "conjugate". (Thanks to Andy Tenne-Sens)
p422: All mentions to \sqrt(G) should be \sqrt(16\pi G) in the paragraphs before Section “Determining the weak field action”. (Thanks to Pierre Jouvelot)
p424: In the first line, d^\nu should be d_\nu, and thus be compatible with Equation 11. (Thanks to Pierre Jouvelot)
p426: In the next to last paragraph, the Lorentz metric \eta_{\mu\nu} is missing in the definition of the trace T. (Thanks to Pierre Jouvelot)
p428: The amplitude should be proportional to (k_1.k_2)(p_1.p_2)/q^2, not (k_1.p_1)(k_2.p_2)/q^2. (Thanks to Joshua Feinberg)

p430, in the 2nd line, g_{phi phi} should be = sin^2 theta. (Thanks to Parsa Bonderson)
p431: 3rd line above appendix: The ordinary derivative acting on the spinor field should have been a covariant derivative of course to account for the dependence of O on x. More precisely, the combination acting \psi could be written as I\gamma^a e_a^\mu \partial_\mu \psi and the \partial_\mu should be replaced by \curlypartial_\mu = \partial_\mu+\Gamma_\mu where \Gamma_\mu, is given by (i/4)\sigma^{ab} e_b^\nu D_\mu e_{a\nu} where D_\mu is the covariant derivative of general relativity involving the Riemann-Christoffel symbol given on page 419. (Thanks to Joshua Feinberg)
p433: Prob. VIII.1.4: "make a further gauge transformation". (Thanks to Andy Tenne-Sens)
p442: The reference to S. Weinberg should be Phys.Rev.Lett. 43, page1566, 1979, not page 311. in that volume.(Thanks to Gil Paz.)
p448: 1st line under "Supersymmetric action": there should be no space in "anyway". (Thanks to Andy Tenne-Sens)
p449: Insert a "−" sign befor the W term in Equation 11. (Thanks to

Pierre Jouvelot)
p461 and 464: subsection titles "SO(N)" and "SU(N)" should be in italics. (Thanks to Andy Tenne-Sens)
p465: line after (15): "denotes N". (Thanks to Andy Tenne-Sens)
p466: In the second paragraph from bottom, “hermitean and traceless as required by (9) and (14)” should read “hermitean and traceless as required by (9) and (10)”. (Thanks to Frank Reashore)
p469: In (24), 55* should be 50*. (Thanks to Pierre Jouvelot)
p470: In the first paragraph, “Let the index \mu takes on the value 1, 2” should read “The index \mu takes on the values 1, 2” or ““Let the index \mu take on the value 1, 2”. (Thanks to Frank Reashore)”

p477: In eq. (13), the denominator on the left hand side should be squared. (Thanks to Daniel Gerber)
p483: In the very last part of the third line of the first equation, the integral range should be from "-\infty"(not zero) to \infty. (Thanks to Sung-Soo Kim)

p484: The last line of the first equation should have a leading factor of -i. (Thanks to Thomas Delmer)
p486: In I.8.5, after "we get", T(A(x)A(0)) should be T[A(x)A(0)]. (Thanks to Pierre Jouvelot)

p486: In I.8.5 <0|A(x)|n> should be <0|A(0)|n>. (Thanks to Thomas Delmer)
p488: II.1.1, 2nd line: different font sizes for the two instances of "i/4". (Thanks to Andy Tenne-Sens)
p488: II.1.1, 6th line: remove comma: "which equals \psi ...". (Thanks to Andy Tenne-Sens)
p489: II.1.6 should be II.1.5. (Thanks to Sung-Soo Kim)
p490: Line 2, "funciton" should be "function". (Thanks to Pierre Jouvelot)
p491: III.5.2: capitalize "Chapter". (Thanks to Andy Tenne-Sens)
p491: In the first line, the reference to (III.1.15) should be (III.1.14). (Thanks to Pierre Jouvelot)
p492: In III.7.1, in the expression for N_{\mu\nu}, the +m^2 g_{\mu\nu} should be -m^2 g_{\mu\nu}. (Thanks to Latham Boyle)
p492: III.7.1: 3rd-to-last line: capitalize "Appendix" and "Chapter" (also correct the spelling). (Thanks to Andy Tenne-Sens)
p492: IV.3.1: remove left parenthesis after "log". (Thanks to Andy Tenne-Sens)
p492: In III.7.1, the (-i) factor in i\Pi should be (-). (Thanks to Pierre Jouvelot)
p494: IV.7.4: In definition of N^{\mu\nu} remove first left parenthesis. (Thanks to Andy Tenne-Sens)
p494: In IV.7.4, there is a missing right parenthesis in the expression defining N^{\mu\nu}. (Thanks to Pierre Jouvelot)
p495: V.6.1: 2nd-to-last equation: remove extra parenthesis in left summand. (Thanks to Andy Tenne-Sens)
p495: In V.6.1, "))" should be ")" in the next to last equation, and

V' should be -V' in the last equation. (Thanks to Pierre Jouvelot)
p496: 3rd line from bottom: "field". (Thanks to Andy Tenne-Sens)
p496: In Line -3, "filed" should be "field". (Thanks to Pierre Jouvelot)
p497: 1st line: add space to "unit of". (Thanks to Andy Tenne-Sens)
p497: V.7.12: add period at end. (Thanks to Andy Tenne-Sens)
p497: In the first line, "unitof" should be "unit of". (Thanks to Pierre Jouvelot)
p499: VII.1.1, line before last formula: "terms of higher order". (Thanks to Andy Tenne-Sens)
p500: The problem (VIII.1.10) for which the answer was given has mysteriously disappeared from the text. (Thanks to Saul Epstein)
p502: correct spelling of author's name is "E.D. Commins". (Thanks to Andy Tenne-Sens)
p503: In the first line it should read 'Wiedemann' instead of 'Wiededemann'. (Thanks to Nikolas Akerblom)
p509: In the entry for Fisher, only 314n refers to Matthew. The other two, 269 and 342, should be to Michael, the father of Matthew. This erratum is particularly embarrassing since I know both persons involved, in contrast to the erratum on page 117. I might, however, also point out that the index is compiled by a professional indexer, not by me. (Thanks to Paul Slater)
p517: "Veltman, Torny" should read "Veltman, Tini". (Thanks to Jeroen Spandaw)
p518: 'Wu Yang-shi' should be 'Wu Tai-Tsun'. This erratum is particularly embarrassing since I know both persons involved, in contrast to the erratum on page 117. I might, however, also point out that the index is compiled by a professional indexer, not by me. (Thanks to Yu Shi)

"I never said, 'I want to be alone.' I only said, 'I want to be left alone.' There is all the difference." -- Greta Garbo